SYSTEM AND METHOD FOR TRANSCODING WITH ADAPTIVE BIT RATE CONTROL

5   **ABSTRACT OF THE INVENTION**

A system and method are provided for adaptive rate control in the transcoding of video streams. The method comprises: accepting frames of an input MPEG encoded video stream; decoding the video stream; determining video stream complexity; for each frame, calculating

10   an output video stream quantization parameter (Qo) responsive to determined video stream complexity; and, encoding the output video stream into a protocol using Qo. Some aspects further comprise accepting a target bit rate ratio (r) for transcoding that is equal to the ratio of the target output video stream number of bits per frame (No), to the input

15   video stream number of bits per frame (Ni). Then, Qo is also calculated in response to the value of r. More explicitly, Qo is calculated in response to a complexity ratio of: an accumulated complexity in the output video stream, to an accumulated complexity in the input video stream.

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